

REMARKS

In the Final Official Action, the Examiner rejected claims 1-3, 5-7, and 10-15. Claims 4, 8, and 9 were previously withdrawn from consideration. Claims 1-3, 5-7, and 10-15 remain pending in the present patent application. By this paper, Applicant amended claims 1, 2, 12, and 15 to clarify certain aspects of the instant claims and to expedite allowance of the present application. Accordingly, Applicant respectfully requests reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Rejections Under 35 U.S.C. § 102

In the Final Office Action, the Examiner rejected claims 1, 2, 5, 11, and 15 under 35 U.S.C. § 102(e) as anticipated by the Hatanaka et al. reference (U.S. Patent No. 6,130,735). Applicant respectfully traverses this rejection.

Anticipation under 35 U.S.C. § 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under 35 U.S.C. § 102, a single reference must teach each and every element or step of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). A *prima facie* case of anticipation under 35 U.S.C. § 102 requires a showing that each limitation of a claim is found in a single reference, practice or device. *In re Donohue*, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985). Thus, if the claims recite even one element not found in the cited reference, the reference does not anticipate the claimed invention.

As recognized by those of ordinary skill in the art, displays can be categorized as reflective or transmissive displays. The former type of display uses an external light sources, i.e., sunlight, to provide the necessary light to illuminate the display. Accordingly, a screen of a reflective type display is generally recognized as a reflective display screen. In contrast, the

latter type of display uses an internal light source, i.e., a backlight, to provide light to illuminate the display. Accordingly, a screen of a transmissive type display is generally recognized as a transmissive display screen.

As discussed throughout the instant application, the present techniques are directed toward problems associated with transmissive displays. Image quality of the transmissive display depends largely on the brightness of the internal light source and the contrast, which is largely dependent on the characteristics of the anti-glare front surface. Unfortunately, the anti-glare front surface can cause speckling artifacts and other image quality problems. Given the desirability of the anti-glare front surface, the Applicant addressed these image quality problems by providing a bulk diffuser. The bulk diffuser functions to reduce the undesirable optical lighting interferences and degradation caused by surface textures and other characteristics of the anti-glare front surface. In this manner, the combination of the anti-glare front surface and the bulk diffuser provide improved image performance of the transmissive display.

Turning to the claims, these features are clearly recited in the sole independent claim. As amended, independent claim 1 recites:

a transmissive display screen;
a transparent panel having a backside and an anti-glare front surface configured to diffuse ambient light; and
a bulk diffuser disposed between the transmissive display screen and the backside, wherein the bulk diffuser is bonded to at least one of the transmissive display screen and the transparent panel, and the bulk diffuser is configured to diffuse image light originating from a backlight of the display.

Accordingly, the instant claim clearly has the above-referenced combination of an anti-glare front surface and a bulk diffuser in context of a transmissive display screen and a backlight.

In view of the present amendments, Applicant again emphasizes the differences between the instant claims and the cited references. In contrast to claim 1, the Hatanaka reference teaches a reflective display, as clearly evidenced by the title “Reflective Liquid Crystal Display Device

Having Front Scattering Films” and each disclosed embodiment of Hatanaka. *See* Title; column 5, lines 57-61; column 7, lines 36-41; column 8, lines 22-30; column 9, lines 2-9; column 10, lines 30-39; column 12, lines 29-33; column 13, lines 12-15 and 30-35. As a result of being a reflective display, and as clearly evidenced by the disclosure, Hatanaka also fails to disclose or suggest a *backlight*, as recited in claim 1.

Regarding the bulk diffuser, the Examiner correlated the scattering film layer 10 to the presently claimed bulk diffuser. *See* Paper No. 9, pages 3-4. However, this film layer 10 is not configured to diffuse *image light originating from a backlight*, as recited in claim 1. Instead, the front scattering film layer 10 diffuses only *ambient* light entering the display from an external source, i.e., sunlight. For this reason, the Hatanaka reference also fails to disclose or suggest the bulk diffuser, as recited in claim 1.

In view of these omitted features, the Hatanaka reference cannot anticipate independent claim 1. As a result, Hatanaka cannot anticipate claims 2, 5, 11, and 15 by way of their dependencies on independent claim 1 and by way of further features recited in each respective claim. For these reasons, Applicant respectfully requests withdrawal of the Examiner’s rejection and allowance of these claims.

Rejections Under 35 U.S.C. § 103

Under 35 U.S.C. § 103(a), the Examiner rejected claims 3, 6, and 10 as unpatentable over Hatanaka in view of the Morgan et al. (U.S. Patent No. 6,068,227), the Examiner rejected claim 7 as unpatentable over Hatanaka and Morgan in view of Varaprasad et al. (U.S. Patent No. 6,087,012), and the Examiner rejected claims 12, 13, and 14 as unpatentable over Hatanaka in view of Sanelle et al. (U.S. Patent No. 6,181,394). Applicant respectfully traverses the foregoing rejections.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be

established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

As discussed above, the Hatanaka reference discloses a *reflective* type display, rather than a *transmissive* display as recited in claim 1. As a result, the Hatanaka reference further lacks a *backlight* as recited in claim 1. The claims subject to this Section 103 rejection all depend from independent claim 1, which is believed to be allowable over the Hatanaka reference for the reasons set forth above. Turning to the secondary references, Applicant stresses that Morgan, Varaprasad, and Sanelle all fail to obviate the foregoing deficiencies of Hatanaka. As a result, dependent claims 3, 6, 7, 10, and 12-14 are patentable based on their dependencies upon allowable independent claim 1 and based on additional features recited by each respective claim. Accordingly, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of these claims.

In addition to the foregoing deficiencies, Applicant reiterates that the Hatanaka and Morgan references are not properly combinable for a number of reasons, including their teaching away from one another. It is improper to combine references where the references teach away

from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983). Dependent claim 6, from which claims 7 and 10 depend, recites that the anti-glare front surface of claim 1 comprises a surface texture. Regarding the cited references, Hatanaka specifically teaches away from *undulated* surfaces, as evidenced by the following passage:

Conventional *reflective* liquid crystal display devices include...one having scattering characteristics by undulations formed on an upper substrate or the like as disclosed in Japanese Laid-open Patent No. 8-338993 (hereinafter called prior art II).

However, if provided with scattering characteristics by *undulations* as in the prior art II, *back scattering occurs* at the time of incidence of surrounding light into the liquid crystal display device. As a result, the reflectivity in black display is not lowered sufficiently, and high contrast is not obtained.

Hatanaka et al., Col. 1, lines 41-53 (emphasis added). Accordingly, the Hatanaka reference clearly teaches away from an *etched* glass transparent panel, as disclosed by Morgan. In light of these passages, one of ordinary skill in the art would be discouraged from using a transparent panel having an *etched* anti-glare treatment with the *reflective* display of Hatanaka. For this reason, Applicant reiterates that the Examiner's rejection cannot stand.

Applicant also reemphasizes the legal precedent that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the combination. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). Again, Applicant stresses that one of ordinary skill in the art would find the teachings of Hatanaka and Morgan incompatible, because the *etched* surface of Morgan would render the *reflective* display of Hatanaka unsatisfactory for its intended purpose. An *etched* surface would clearly disrupt the primary function of a *reflective* display, i.e., reflecting external light to provide a display image. For example, the *etched* surface of Morgan would reduce the amount of external light entering the *reflective* display, thereby reducing the image quality of the *reflective* display of Hatanaka. A combination such as this simply cannot be made. For this reasons, this Section 103 rejection cannot stand.

In view of the foregoing amendments and remarks, Applicant believes the present claims are patentable over the cited references. Accordingly, Applicant respectfully requests the Examiner withdraw all rejections under 35 U.S.C. § 103.

Conclusion

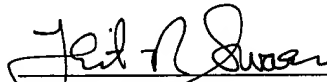
As discussed above, Applicant respectfully submits that all pending claims should be in condition for allowance. Accordingly, Applicant requests the Examiner withdraw the outstanding rejections. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

General Authorization for Extensions of Time

In accordance with 37 C.F.R. § 1.136, Applicant hereby provides a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefor. Furthermore, Applicant authorizes the Commissioner to charge the appropriate fee for any extension of time to Deposit Account No. 06-1315; Order No. LCOM:0007.

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Respectfully Submitted,



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